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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/522,511	10/31/2005	Aruong Juang	003D.0046.U1(US)	3473
29683 7590 03/30/2009 HARRINGTON & SMITH, PC 4 RESEARCH DRIVE, Suite 202 SHELTON, CT 06484-6212			EXAMINER HESS, DANIEL A	
			ART UNIT 2876	PAPER NUMBER
			MAIL DATE 03/30/2009	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/522,511	Applicant(s) JUANG, ARUONG	
	Examiner DANIEL A. HESS	Art Unit 2876	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1/26/2005; 4/23/2007</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

This action is responsive to applicant's 10/31/2005 filing.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 5 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Chang (US 6,146,195).

Re claim 1: Attention is drawn especially to figure 1 of Chang. A stacked media card connector is shown. It includes top reader portion 11 and bottom reader portion 21. The top reader portion has a first slot 14 and the bottom reader portion has a second slot 24. There is a first connecting means comprising contacts 13 that are between the first area indicated by slot 14 and the second area indicated by slot 24. A second connecting means comprising contacts 23 for connecting to a second card-like media is shown protruding through portion 2, which is described in the specification as “a housing base.”

Re claim 3: See figure 1 again. There is a circuit board 3 between the two storage areas. This can be considered a shield.

Re claim 5: As the title, “Stacked smart card connector assembly” shows, Chang's connector is for smart cards.

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Re claim 6: It is generally appreciated that smart cards, which Chang receives, are memory cards. While memory may or may not be the primary function of a given smart card, smart cards generally have some amount of on-board memory.

Claim Rejections - 35 USC § 103

Claims 2, 4 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang as applied to claim 1 above.

Re claim 2: The language, "for receiving at least half thickness of the first connecting means" is confusing, but the examiner understands it to mean that the connector protrudes at least halfway into the slot, thickness-wise.

Chang discloses (column 3, lines 4+): "Each contact 13 includes a **contact portion** (not shown) **extending into the slot for engaging with a corresponding conductive pad of the smart card**, and a solder or mounting portion (not labeled) downwardly extending from the base 12 for engaging with the circuit board 3."

Chang is silent as to how deeply the contact extends into the slot, but we may expect that it is deeply enough to make good contact. As a matter of good design, it can be expected that the contacts extend deeply enough into the slot with the motive that when they are elastically displaced by the card, they will be biased against the contacts of the card with enough force to make a good electrical connect. A half-thickness is a good range to allow for sufficient displacement of the contact and good biasing force.

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It is noted that the applicant does not, in the specification, provide any evidence of special criticality of 1/2 thickness as a threshold, and thus this represents an obvious variant of Chang.

Re claim 4: See column 4, lines 7+:

“The circuit board 3 comprises eight contact receiving holes 31 arranged in two rows for insertion of the solder portions of the contacts 13 of the upper connector 1, and two apertures 32 for engaging with the switch device.”

It cannot be exactly determined how deeply the contacts extend into receiving holes 31, but a half-thickness is a reasonable amount with the motivation to ensure that the contacts are held firmly in place.

Re claim 7: See column 4, lines 54+:

“The stacked connector assembly is connected to the mother board by engaging with the connecting portions 422 of the header connector 4 and the contacts 23 of the lower connector 2 with the mother board. Thus, data of one smart card inserted into the upper connector 1 can be effectively transmitted to the mother board via the intermediate circuit board 3 and the header connector 4, while data of another smart card inserted into the lower connector 2 can be directly transmitted to the mother board via the contacts 23.”

One may consider the motherboard to be the common board, to which both banks of connectors are connected.

As for using certain boards as transmission boards for moving connections around, the board 3 does some of this, and the exact structure of this type this are a matter of obvious design

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choice. There are multiple equivalent ways to move the signal from the contacts banks 13 and 23 to the motherboard.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Lai (US 5,176,523) and Haru (US 6,071,149) both are among dozens of prior art examples of stacked media card connectors similar to those claimed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL A. HESS whose telephone number is (571)272-2392. The examiner can normally be reached on 8:00 AM - 5:00 PM M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on (571) 272-2398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/Daniel A Hess/

Primary Examiner, Art Unit 2876